

What is claimed is:

1. An optical disk recording method for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk,

wherein tracking control is performed in such a way that a center of an optical axis of the light beam is offset, by a predetermined amount, from a center line of the track toward the outer circumference of the optical disk.

2. An optical disk recording method for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of an optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk,

wherein tracking control is performed using a tracking error signal detected at given time segments within an ON period of a recording pulse signal after formation of a pit is initiated and a reflection of the light beam from the optical disk passes a peak level and within an OFF period of the recording pulse signal.

4. ~~An optical disk recording device for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk, said optical disk recording device comprising:~~

a tracking signal generating section that sequentially outputs a detected tracking error signal during a particular period from a given time point after formation of a pit is initiated in response to turning-on of a recording pulse signal and a reflection of the light beam from the optical disk passes a peak level to a subsequent time point when the recording pulse signal is turned on next, and that, during a period other than said particular period, either holds a level of the tracking error signal detected immediately before said particular period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal; and

5. An optical disk recording device as recited in claim 4 which further comprises a section that modifies a start point of a time segment for detecting the tracking error signal.

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Control

an offset imparting section that imparts an offset

to the tracking signal;

a storage section that stores information indicative of optimum offset values corresponding to various possible recording conditions; and

a control section that reads out one of the optimum offset values corresponding to current recording conditions and setting the offset, to be imparted by said offset imparting section, to the read-out offset value, and performs tracking control using the tracking signal having the offset imparted thereto.

7. An optical disk recording device for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk, said optical disk recording device comprising:

a tracking signal generating section that sequentially outputs a tracking error detection signal during a particular period from a given time point after formation of a pit is initiated in response to turning-on of a recording pulse signal and a reflection of the light beam from the optical disk passes a peak level to a subsequent time point when the recording pulse signal is turned on next, and that, during a period other than said particular period, either holds a level of the tracking er-

~~ror signal detected immediately before said particular period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal;~~

an offset imparting section that imparts an offset to the tracking signal;

a storage section that stores information indicative of optimum offset values corresponding to various possible recording conditions; and

a control section that reads out one of the optimum offset values corresponding to current recording conditions and setting the offset, to be imparted by said offset imparting section, to the read-out offset value, and performs tracking control using the tracking signal having the offset imparted thereto.

8. An optical disk recording device as recited in claim 7 which further comprises a section that modifies a start point of a time segment for detecting the tracking error signal.

a servo error detecting section that detects a servo error by performing arithmetic operations between the

~~a servo section that corrects the servo error by driving a servo actuator on the basis of the servo error detected by said servo error detecting section;~~

a control section that automatically adjusts the level balance between the reflected light reception signals by controlling said adjusting section in such a way that the wobble component detected by said wobble component detecting section presents a substantially minimum level.

an optical head that irradiates a recording laser light beam onto an optical disk for recording of information thereon and receives a reflection of the laser light beam from the optical disk to provide reflected light reception signals;

~~a display that displays a level of the wobble component detected by said wobble component detecting section:~~

a level balance adjusting operator that is operable to manually adjust the level balance between the reflected light reception signals by controlling said adjusting section in such a way that the wobble component detected by said wobble component detecting section presents a substantially minimum level.

a display that displays a level of the wobble com-



ponent detected by said wobble component detecting section.

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